Elijah Grubb

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EXPERIENCE

University of Maryland, College Park, MD
Graduate Research Assistant
MAY 2019 - PRESENT

- Prototyped new byzantine agreement protocols for experimentation under realistic network conditions.
- Researched practical zero-knowledge proof systems with a focus on optimal prover efficiency.

SRI International, Menlo Park, CA
Research Intern
JUNE 2020 - AUGUST 2020

- Contributed to theory and implementation of an integrated approach to the generation of zero-knowledge proofs.

IMDEA Software Institute, Madrid, Spain
Visiting Graduate Student
SEPTEMBER 2019 - DECEMBER 2019

- Implementation and application of commit-and-prove zero-knowledge proof systems.

University of Utah, Salt Lake City, UT
Undergraduate Research Assistant
SEPTEMBER 2017 - AUGUST 2018

- Brought Docker support to the Emulab network testbed system housed at the University of Utah.
- Publication at CSET @ USENIX Security Symposium 2018.

Qualtrics, Provo, UT
Software Engineer Intern
MAY 2017 - AUGUST 2017

- Built a full stack application from scratch for assisting the team in storing custom settings for active projects.

EDUCATION

University of Maryland, College Park, MD
M.Sc. in Computer Science, DECEMBER 2021 (EXPECTED)

Relevant Courses: Computer and Network Security, Applied Cryptography and Hostile Governments, Computer Networks, Secure Distributed Computation.

University of Utah, Salt Lake City, UT
B.S. in Computer Science, AUGUST 2018

Relevant Courses: Software Verification, Distributed Systems, Number Theory, Advanced Operating Systems, Database Systems, Data Mining.

LANGUAGES & TOOLS

Rust, C, Python, C++, Java, JavaScript, Matlab, SQL, Docker, Vim, NodeJS, Git, Linux, Windows, MacOS

PUBLICATIONS

Supporting Docker in Emulab-Based Network Testbeds.
D. Johnson, **E. Grubb**, E. Eide.
CSET '18.

TEACHING ASSISTANT

Cryptography, 72 students, CMSC 456 Spring '21 @ UMD

Operating Systems, 76 students, CMSC 412 Fall '20 @ UMD

Cryptography, 60 students, CMSC 456 Spring '20 @ UMD

Cryptography, 85 students, CMSC 456 Spring '19 @ UMD

Org. of Programming Languages, 500+ students, CMSC 330 Fall '18 @ UMD

Database Systems, 134 students, CS 5530 Spring '17 @ Utah

SKILLS & INTERESTS

Applied Cryptography, Computer Security, Zero-Knowledge Systems, Privacy, Authentication, Public Key Infrastructure, Database Design, Code Review

EXTERNAL REVIEWER

EUROCRYPT 2021
CCS 2021